

Message

---

**From:** Fong, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7DE16D76B5AE4EE7A273FF83D0C31E25-AFONG]  
**Sent:** 3/19/2015 9:51:13 PM  
**To:** Baylor, Katherine [Baylor.Katherine@epa.gov]  
**Subject:** RE: Kerr McGee Site NDEP Data Gaps

Kathy,

Here's the list of white paper topics we've been talking about with NDEP about recently in conceptualizing the Site goals, strategy (including the committees to expedite technical decision-making), and 2015 milestones.

- **GWETS Continuous Optimization (1250lbs/day to 2000lbs/day)**
  - Upgrading lift station for AWF (current limitation of 300 gpm)
  - Shifting flow from SWF to AWF (focus on mass removal, maintain capture)
  - Extraction Well rehabilitation (Rehab wells that are no longer as productive)
  - GWETS Effluent Pipeline replacement
- **SNWA Weir Dewatering Treatment (1000 GPM, 2-3ppm)**
  - Sunrise Mountain 2015 (see Insert)
  - Historic Lateral 2017 (see insert)
- **Unit#4 Contaminated Soils Remediation**
- **Installation of additional extraction wells or well fields, slurry walls**
  - Modification of Existing Well Fields (Install deeper wells, additional wells on edges)
  - Eastern property boundary (Timet)
  - Warm Springs (behind former Chrome treatment injection gallery)
  - Source area (Unit #4,5)



in the upgradient areas (within the NERT area of responsibility), rather than in the downgradient NDEP study area.

2. **Hyporheic zone expert:** Las Vegas Wash is the most significant ground water discharge area for the Kerr McGee site. As an effluent-dominated losing stream, Las Vegas Wash is a complicated hydraulic system. NDEP (or NDEP's contractor) should consider retaining a hyporheic zone expert to assist with assessment of the groundwater to surface water interactions at Las Vegas Wash. Additionally, NDEP should continue to closely coordinate with Southern Nevada Water Authority's weir construction and wetland restoration efforts in Las Vegas Wash to ensure that such work does not unduly impact perchlorate assessment and remediation work in this area.
3. **Potential re-development areas:** Any areas within the NDEP study area that are likely to undergo redevelopment in the next two to seven years should be a priority for the current investigation. It is logistically much easier to investigate groundwater under an open field than within an existing housing development. NDEP should work with the City of Henderson and relevant redevelopment agencies to identify such locations. One such area may be a recently re-graded (since 2012) area near the Henderson wastewater treatment ponds (yellow polygon on figure at right)
4. **Anthropogenic contaminant migration conduits:** The data gaps assessment should consider including an evaluation of man-made subsurface pathways that may enhance contaminant transport. Such conduits may include water or wastewater pipelines, electrical conduits, natural gas pipelines, and similar subsurface structures. Backfill material installed in the trench around such conduits may be higher transmissivity material than the natural soil, which could facilitate contaminant transport along the outside edge of the pipeline or conduit. Additionally, sewer pipelines (sanitary and/or stormwater) may need additional assessment to ensure that breaks in the pipeline do not allow for perchlorate-contaminated groundwater to enter directly into the storm/sanitary pipeline.
5. **Geophysical characterization:** If additional delineation of paleochannels is needed, project personnel should consider the use of geophysical characterization techniques such as DC resistivity mapping, ground penetrating radar (GPR) and similar technologies.



Katherine Baylor, PG  
U.S. Environmental Protection Agency  
75 Hawthorne Street, LND-4-1  
San Francisco, CA 94105  
415-972-3351  
[baylor.katherine@epa.gov](mailto:baylor.katherine@epa.gov)